```
            11          20          29          38          47          56
5' GCGCC ATC AGC CGC CCG GGA GAT ATC CGC CGG GGG AGA ATA GGG TTG CAC CAT CCC

            65          74          83          92         101         110
   AGA AGC TGC TGT TAG CTC GCC GGT CCT CGG CAC GCC GCC CGT TCG CCC CTG CGC

           119         128         137         146         155         164
   TGT CCG CCC TTC CCC TAG CGT TAC TTC CGG TCC CTC GCT GAG GGG GTT CGT GCG

           173         182         191         200         209         218
   GCT CCC AGG AGG CGT GAA CCG CGG ACC ATG AGC GTG GGC TTC ATC GGG GCC GGC
                                       M   S   V   G   F   I   G   A   G

           227         236         245         254         263         272
   CAG CTG GCC TAT GCT CTG GCG CGG GGC TTC ACG GCC GCA GGC ATC CTG TCG GCT
   Q   L   A   Y   A   L   A   R   G   F   T   A   A   G   I   L   S   A

           281         290         299         308         317         326
   CAC AAG ATA ATA GCC AGC TCC CCA GAA ATG AAC CTG CCC ACG GTG TCC GCG CTC
   H   K   I   I   A   S   S   P   E   M   N   L   P   T   V   S   A   L

           335         344         353         362         371         380
   AGG AAG ATG GGT GTG AAC CTG ACA CGC AGC AAC AAG GAG ACG GTG AAG CAC AGC
   R   K   M   G   V   N   L   T   R   S   N   K   E   T   V   K   H   S

           389         398         407         416         425         434
   GAC GTC CTG TTT CTG GCT GTG AAG CCA CAT ATC ATC CCC TTC ATC CTG GAT GAG
   D   V   L   F   L   A   V   K   P   H   I   I   P   F   I   L   D   E
```

FIGURE 1A

```
          443         452         461         470         479         488
ATT GGG GCC GAC GTG CAA GCC AGA CAC ATC GTG GTC TCC TGT GCG GCT GGT GTC
I   G   A   D   V   Q   A   R   H   I   V   V   S   C   A   A   G   V

          497         506         515         524         533         542
ACC ATC AGC TCT GTG GAG AAG AAG CTG ATG GCA TTC CAG CCA GCC CCC AAA GTG
T   I   S   S   V   E   K   K   L   M   A   F   Q   P   A   P   K   V

          551         560         569         578         587         596
ATT CGC TGC ATG ACC AAC ACA CCT GTG GTA GTG CAG GAA GGC GCT ACA GTG TAC
I   R   C   M   T   N   T   P   V   V   V   Q   E   G   A   T   V   Y

          605         614         623         632         641         650
GCC ACG GGC ACC CAT GCC CTG GTG GAG GAT GGG CAG CTC CTG GAG CAG CTC ATG
A   T   G   T   H   A   L   V   E   D   G   Q   L   L   E   Q   L   M

          659         668         677         686         695         704
AGC AGC GTG GGC TTC TGC ACT GAG GTG GAA GAG GAC CTC ATC GAT GCC GTC ACG
S   S   V   G   F   C   T   E   V   E   E   D   L   I   D   A   V   T

          713         722         731         740         749         758
GGG CTC AGT GGC AGC GGG CCT GCC TAT GCA TTC ATG GCT CTG GAC GCA TTG GCT
G   L   S   G   S   G   P   A   Y   A   F   M   A   L   D   A   L   A

          767         776         785         794         803         812
GAT GGT GGG GTG AAG ATG GGT TTG CCA CGG CGC CTG GCA ATC CAA CTC GGG GCC
D   G   G   V   K   M   G   L   P   R   R   L   A   I   Q   L   G   A
```

FIGURE1B

```
         821        830        839        848        857        866
CAG GCT TTG CTG GGA GCT GCC AAG ATG CTG CTG GAC TCG GAG CAG CAT CCA TGC
Q   A   L   L   G   A   A   K   M   L   L   D   S   E   Q   H   P   C

         875        884        893        902        911        920
CAG CTT AAG GAC AAT GTC TGC TCC CCT GGG GGA GCC ACC ATC CAC GCC CTG CAC
Q   L   K   D   N   V   C   S   P   G   G   A   T   I   H   A   L   H

         929        938        947        956        965        974
TTT CTA GAG AGT GGG GGC TTC CGC TCT CTG CTC ATC AAT GCA GTT GAG GCC TCC
F   L   E   S   G   G   F   R   S   L   L   I   N   A   V   E   A   S

         983        992       1001       1010       1019       1028
TGT ATC CGA ACA CGA GAG CTA CAG TCC ATG GCC GAC CAA GAA AAG ATC TCC CCA
C   I   R   T   R   E   L   Q   S   M   A   D   Q   E   K   I   S   P

        1037       1046       1055       1064       1073       1082
GCT GCC CTT AAG AAG ACC CTC TTA GAC AGA GTG AAG CTG GAA TCC CCC ACA GTC
A   A   L   K   K   T   L   L   D   R   V   K   L   E   S   P   T   V

        1091       1100       1109       1118       1127       1136
TCC ACA CTG ACC CCC TCC AGC CCA GGG AAG CTC CTC ACA AGA AGC CTG GCC CTG
S   T   L   T   P   S   S   P   G   K   L   L   T   R   S   L   A   L

        1145       1154       1163       1172       1181       1190
GGA GGC AAG AAG GAC TAA GGC AGC ATC TGT CCC CTC TGT GAT TCA GAG CCC TTA
G   G   K   K   D
```

FIGURE 1C

```
      1199        1208        1217        1226        1235        1244
GTT GAG AGC CCC TGC CGC CCC TGC CAC CCC CCT GCC CCG CTC CCA CCA TTG CCC

      1253        1262        1271        1280        1289        1298
CTC CTC AGC TGT GCA AGG AGA AAG CAT GCT TAG GAA GTT TTC AGG TCC TTG TGA

      1307        1316        1325        1334        1343        1352
TAA AAC CTC CTT AAA TCT GTT CAG ACC AAG CAA TGC GAG CTT CCT CTC CTG TCC

      1361        1370        1379        1388        1397        1406
CAT GTT GGA AGT TGC TCT GAA GGG GTG GTA GAT GCT GGA AGC CAG ACA CAA CCC

      1415        1424        1433        1442        1451        1460
TGC GTA CGC TGC TCA GTT GGT GGA GAC TGG GGC TGG GAC TGG AGT CAG CCC AGC

      1469        1478        1487        1496        1505        1514
TGG GAG GAG GGG CTG GGG AGG ATC TGC AGC TGA AGC CCG AGG CAG GGT TGG TGT

      1523        1532        1541        1550        1559        1568
GAT GCC AAG GCA AAG TGG TGA GGA GAA AAC AGG AAA CGG GCT TTC TCT GAA TTG

      1577        1586        1595        1604        1613        1622
GTA AAT GGG AAA GAA GTG AGC AAC TTA AGA TTG TCA CAA TTA ATC ACA AGT GTA

      1631        1640        1649        1658        1667        1676
CAG GAT TAG ACT GGG TTT ATA TTT AAC TCT TGC TTC ATA GGT GTA CCA TTT AAA
```

FIGURE 1D

```
        1685        1694        1703        1712        1721        1730
GAG TGT TAT TTA ATG CTA AGT TTA ACT GCT TTA ATA AAG TTT ATT TTT AAA TAT

        1739
CAA AAA AAA AAA  3'
```

FIGURE 1E

```
1    M S V G F I G A G Q L A Y A L A R G F T A A G I L S A H K I I A S S P  2278458
1    M S V G F I G A G Q L A F A L A K G F T A A G V L A A H K I M A S S P  g189498

36   E M N L P T V S A L R K M G V N L T R S N K E T V K H S D V L F L A V  2278458
36   D M D L A T V S A L R K M G V K L T P H N K E T V Q H S D V L F L A V  g189498

71   K P H I I P F I L D E I G A D V Q A R H I V V S C A A G V T I S S V E  2278458
71   K P H I I P F I L D E I G A D I E D R H I V V S C A A G V T I S S I E  g189498

106  K K L M A F Q P A P K V I R C M T N T P V V V Q E G A T V Y A T G T H  2278458
106  K K L S A F R P A P R V I R C M T N T P V V V R E G A T V Y A T G T H  g189498

141  A L V E D G Q L L E Q L M S S V G F C T E V E E D L I D A V T G L S G  2278458
141  A Q V E D G R L M E Q L L S T V G F C T E V E E D L I D A V T G L S G  g189498

176  S G P A Y A F M A L D A L A D G G V K M G L P R R L A I Q L G A Q A L  2278458
176  S G P A Y A F T A L D A L A D G G V K M G L P R R L A V R L G A Q A L  g189498

211  L G A A K M L L D S E Q H P C Q L K D N V C S P G G A T I H A L H F L  2278458
211  L G A A K M L L H S E Q H P G Q L K D N V S S P G G A T I H A L H V L  g189498
```

FIGURE 2A

```
246 E S G G F R S L L I N A V E A S C I R T R E L Q S M A D Q E K I S P A 2278458
246 E S G G F R S L L I N A V E A S C I R T R E L Q S M A D Q E Q V S P A g189498

281 A L K K T L L D R V K L E S P T V S T L T P S S P G K L L T R S L A L 2278458
281 A I K K T I L D K V K L D S P A G T A L S P S G H T K L L P R S L A P g189498

316 G G K K D 2278458
316 A G K - D g189498
```

FIGURE 2B